

U.S. Serial No. 10/538,327

Response dated: June 28, 2010

Response to Office Action dated: December 29, 2009

REMARKS

Claims 1, 4-10 and 12 remain pending in the present application. Claim 1 is amended to incorporate the limitations of claims 2 and 3. Claims 2 and 3 are hereby canceled without prejudice or disclaimer of subject matter. Claims 4 and 5 are amended in view of the cancelation of claims 2 and 3. The amendment to the specification is submitted to correct typographical errors and to revise some numbering formerly in European format into U.S. format. The amendment to Table 1, column 4 (heading), would have been obvious to those skilled in the art; while the amendment to column 5 (heading) finds basis at page 12, paragraph 4 of the specification. No new matter is entered.

Rejection under 35 U.S.C. §103(a) over Cogen in view of DeNicola, Jr.

Claims 1-4, 7-10 and 12 stand rejected under 35 U.S.C. §103(a) as obvious over Cogen in view of DeNicola, Jr. Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Applicants reiterate their comments in traverse of the application of the cited references as to the present claims, as set forth in their previous response of October 27, 2009. Notably, claim 1 is now amended to incorporate the limitations of former claims 2 and 3, now canceled.

At page 5 of the outstanding Office Action, the Examiner states:

Regarding claims 3 and 4, it would have been obvious to the skilled artisan during routine experimentation to purify the propylene polymer to remove entrained catalyst. Accordingly, the limitations of present claims 3 and 4 are not construed to be a matter of invention in the absence of factual evidence of unexpected or superior properties of the resultant cable, whereby said properties are directly related to the claimed critical catalyst residue.

The Examiner stated that the limitation of claim 3 is allegedly not a matter of invention as factual evidence of superior properties of the resultant cable which are directly related to the claimed critical catalyst residues are allegedly missing. As can be seen from Table 1 on page 13 of the application, the clean polypropylene, i.e. a polypropylene with inter alia an ash content of below 100 ppm, has a dissipation factor Tan Delta (10^{-6}) at 1.8 GHz of 60. A standard polypropylene has an ash content of about 300 ppm.

In support thereof, the Examiner's attention is directed to the Declaration under 37 C.F.R. §1.132 of Ulf Nillson submitted herewith. In his Declaration, Mr. Nillson states:

I am familiar with the prosecution before the U.S.P.T.O. of the above-identified patent application and have read in detail the Examiner's Office Action of 29 December 2009. I disagree with the Examiner's conclusion as to the obviousness of the presently claimed invention for the following reasons.

In order to support the validity of the testing data presented in Table 1 (page 13) of the present application, the following experiments were conducted under my supervision and control.

A standard polypropylene has an ash content of about 300 ppm. While the dissipation factor of such a standard polypropylene is not given in the application, I have measured the dissipation factor of a standard polypropylene which is 110, i.e. nearly double that of a clean polypropylene. The density (902 kg/m^3) and the MFR₂ (1.5 g/10 min) of said standard polypropylene were similar to the clean polypropylene according to Table 1 (page 13) of the present application.

As indicated by Mr. Nillson, the measured dissipation factor of a standard polypropylene which found to be 110, nearly double that of a clean polypropylene. The density (902 kg/m^3) and the MFR₂ (1.5 g/10 min) of said

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standard polypropylene were similar to the clean polypropylene according to Table 1 (page 13).

Furthermore, when blending said clean polypropylene with polypropylene showing strain hardening behavior (MPP) the resultant composition has a significantly lower dissipation factor compared with the polypropylene showing strain-hardening behavior alone. In case where the MPP is blended with a standard PP having a dissipation factor of 110, the dissipation factor of the resulting composition will be higher than 110.

In this regard, please note that the polypropylene showing strain hardening behavior is required to obtain a high degree of expansion as disclosed on page 3, paragraph 6 of the application as filed, i.e. using pure clean polypropylene is not possible. Thus, the clean polypropylene shows a clear technical effect. Said effect is neither disclosed nor suggested in the cited prior art.

The Examiner's attention is directed to the fact that only Cogen relates to a coaxial cable. Cogen discloses the dissipation factor of said cable in the table on page 6. However, the dissipation factor has been measured at 1 MHz whereas the cables of the present invention have been tested at 1.8 GHz. Those of skill in the art know that the problem of dissipation increases with increasing frequency, i.e. a cable showing good dissipation at low frequency, such as 1 MHz, does not necessarily have a good dissipation at a frequency more than three orders of magnitude higher, as in the present invention.

Hence, even if a skilled person would look to Cogen, it gives no hint how to modify a cable to obtain a low dissipation factor at high frequency. DeNicola Jr. fails to cure such deficiency in the Cogen teachings.

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Accordingly, Applicants respectfully submit that the above discussed data adequately demonstrates unexpected results over the closest prior art of Cogen.

Likewise, in assessing the rebuttal value of unexpected results, the Examiner is reminded that Applicants need only demonstrate unexpected results over the closest prior art (in this case Cogen) and not over the proposed combination of reference teachings.

Applicant compared his system with the most relevant prior art. It is not required that the claimed invention be compared with subject matter that does not exist in the prior art. The applicant is not required to create prior art, nor to prove that his invention would [not] have been obvious if the prior art were different than it actually was. *In re Geiger*, 815 F.2d 686, 2 USPQ2d 1276 (Fed. Cir. 1987), concurrence.

Withdrawal of the rejection is requested on this basis.

Rejection under 35 U.S.C. §103(a) over Cogen in view of DeNicola, Jr. and further in view of Comer

Claims 5-6 stand rejected under 35 U.S.C. §103(a) as obvious over Cogen in view of DeNicola, Jr., and further in view of Comer. Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Applicants reiterate their comments in traverse of the application of the cited references as to the present claims, as set forth above, relative to the combination of Cogen and DeNicola, Jr.

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Again, Applicants respectfully submit that their demonstration of unexpected results is sufficient to rebut the present rejection, as it is based upon the same combination of reference teachings as that above.

Withdrawal of the rejection is requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Account No. 50-2478 (12466).

In view of the foregoing, it is respectfully submitted that the present claims are in condition for allowance. Prompt notification of allowance is respectfully requested.

Respectfully submitted,

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